

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	WWLP Broadcasting, LLC
Negotiated Channel Election Arrangements)	WGBH Educational Foundation
)	App. File No. 20050210AFE
)	
Second Periodic Review of the Commission's)	MB Docket No. 03-15
Rules and Policies Affecting the Conversion to)	
Digital Television)	

To: Chief, Media Bureau

**PETITION FOR RECONSIDERATION OF
MT. MANSFIELD TELEVISION, INC.**

Pursuant to Section 1.106 of the Commission's rules, Mt. Mansfield Television, Inc., the permittee of WCAX-DT, Burlington, VT ("Mt. Mansfield"), respectfully petitions for reconsideration of one aspect of one of the negotiated channel election agreements tentatively approved in the Bureau's *Report and Order* in this docket, released June 8, 2005.¹

Mt. Mansfield currently operates on NTSC channel 3. Its assigned DTV channel (53) is out-of-core, and thus Mt. Mansfield is required to locate an in-core channel to use following the DTV transition. As set forth in the attached engineering statement, channel 3 is unavailable for this purpose, because of the proximity of co-channel allotments in Ontario and Quebec that are protected under the 2000 Letter of Understanding between the Commission and Industry Canada. As a result of substantial efforts by the International

¹ Report and Order, *Negotiated Channel Election Arrangements*, DA 05-1619 (released June 8, 2005).

Bureau, Industry Canada has recently agreed to changes in a series of allotments that would permit Mt. Mansfield to operate post-transition on DTV channel 22, at a power (443 kW) designed to achieve replication of its analog coverage. While Mt. Mansfield has no objection to the use of digital channel 22 by WGBY-TV, Springfield, MA, as proposed in the *Report and Order*, it urges the Bureau to make clear that any such use will be conditioned on acceptance of the *de minimis* interference that would be created by the need for Mt. Mansfield to use the same digital channel at the close of the DTV transition, in accordance with the parameters set forth in the International Bureau's letter to Industry Canada dated June 16, 2005 (a copy of which is attached hereto).²

As the Bureau has made clear, negotiated channel arrangements are subject to Commission review and approval. Their acceptance "will result only in the assignment of tentative channel designations," which "do not guarantee final allotments." And if the Commission concludes that such an arrangement "reasonably could be construed to have an adverse impact on the interests of a station not a party" to it, "or is otherwise not in the public interest," the arrangement "will be rejected."³ For three reasons, application of this

² This petition is appropriately filed pursuant to 47 C.F.R. § 1.106(b)(1). It was not until the Commission released the foregoing *Report and Order* that it gave public notice of the DTV channel that is the subject of WGBY-TV's negotiated channel arrangement. Moreover, it was not until June 16, 2005, that the International Bureau and Industry Canada reached agreement concerning an acceptable post-transition channel for Mt. Mansfield (in conjunction with changes in other allotments).

Counsel for Mt. Mansfield have discussed the issue raised in this petition with counsel for WGBY-TV. Because WGBY-TV requires additional time to study the matter, Mt. Mansfield is filing this petition out of an abundance of caution in the event that the parties are unable to reach agreement on the matter.

³ *Public Notice, DTV Channel Election Issues - Negotiated Channel Arrangements*, DA 05-273, at 1 (released Feb. 1, 2005). See also *Report and Order, Second Periodic*

standard dictates that WGBY-TV's use of digital channel 22 be conditioned on acceptance of Mt. Mansfield's use of the same digital channel in accordance with the foregoing parameters.

First, as the Bureau's June 8 *Report and Order* concluded, depriving another station of a viable channel from the pool otherwise available in the second round is a basis for rejecting a negotiated channel arrangement. One of the arrangements under review in that order was rejected, because it would have deprived WPVI-TV (which has been assigned NTSC channel 6 and DTV channel 64), of one such viable channel in trying to locate an in-core DTV channel for use post-transition. Mt. Mansfield is in a similar position, with a low VHF analog channel (3) and and out-of-core DTV channel (53).⁴

Second, Mt. Mansfield's post-transition DTV position is even more tenuous. The Commission has specifically recognized the need to give deference to the needs of broadcasters facing difficulties in international coordination. It "will consider a station's border coordination efforts when prioritizing channel assignments," and will "accor[d] great weight" to international coordination arrangements "in determining final assignments."⁵ As the Commission is aware, DTV channel 22 is the *only* channel approved by Industry Canada for use by Mt. Mansfield post-transition, in a border area where multiple Canadian allotments in Ontario and Quebec that are entitled to protection under the 2000 Letter of Understanding make any alternatives for Mt. Mansfield highly

Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television, 19 FCC Rcd 18,279, 18,297-98 ¶ 45 (2004) ("*Second Periodic Review*").

⁴ *Negotiated Channel Election Arrangements* ¶ 16.

⁵ *Second Periodic Review*, 19 FCC Rcd at 18294-95 ¶ 39 & n.77.

impracticable if not impossible, at least in the foreseeable future. Mt. Mansfield and the International Bureau spent substantial time and effort trying to identify an appropriate replacement for the out-of-core DTV channel assigned to WCAX-TV that would be acceptable to Industry Canada. With great difficulty, the International Bureau has only very recently been able to conclude a negotiation to locate the one channel (22) that meets this criterion. The public interest would not be served by requiring the Bureau and Mt. Mansfield to retrace those difficult steps, particularly in light of the substantial delays in DTV deployment that would result for *all five* Burlington-Plattsburgh DMA stations.⁶

Finally, the public interest would be best served by shared use of DTV channel 22 by Mt. Mansfield and WGBY-TV in light of the *de minimis* interference resulting from co-channel operation. Analog channel 22 has been successfully shared by Burlington and Springfield stations for many years (WVNY-TV and WWLP-TV, respectively). Mt. Mansfield's post-transition use of this channel would similarly cause only noncognizable interference to WGBY-TV.⁷ As set forth in the attached engineering statement, in light of its beam tilt, Mt. Mansfield's proposed use of DTV channel 22 at the reduced 443 kW power required by Industry Canada would result in interference to only 863 persons within the WGBY-TV service area. This 0.04% increase in interference is well within the *de*

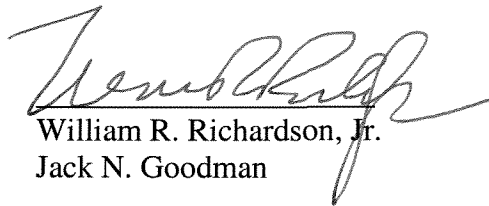
⁶ As the Bureau is aware, those stations must operate from a common facility pursuant to very specific technical parameters that have finally, after almost ten years, been approved under Vermont's very rigorous state land use restrictions.

⁷ Interference to WCAX-TV from WGBY's operations on digital channel 22 would be even less.

minimis range deemed to be acceptable by the Commission, even when using predicted rather than interference-free service calculations.⁸

For the foregoing reasons, Mt. Mansfield requests that the Bureau condition any use by WGBY-TV of DTV channel 22 on acceptance of the parameters for operation of Mt. Mansfield on that same digital channel set forth in the International Bureau's June 16, 2005, letter to Industry Canada.

Respectfully submitted,



William R. Richardson, Jr.
Jack N. Goodman

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⁸ See *Second Periodic Review* at 18302-03, ¶ 56. In the event that, at the end of the Canadian DTV transition – the date for which has not been established – Canadian station CBOFT-TV, Ottawa, ON, chooses to increase power operating on DTV channel 22, Industry Canada and the International Bureau have agreed to permit Mt. Mansfield to increase power to 550 kW, in order to preserve its coverage area. That increase would result in interference only to an additional 461 persons in WGBY-TV's service area (over the level at 443 kW), according to the attached engineering statement, and should also be viewed as acceptable for the reasons stated above.



Federal Communications Commission
Washington, DC 20554

International Bureau.

REGISTERED MAIL-RETURN RECEIPT REQUESTED

Mr. P. Vaccani, Director
Broadcast Applications Engineering
Broadcasting Regulation Branch
Industry Canada
Jean Edmonds Tower North
300 Slater Street
Ottawa, Ontario, Canada K1A 0C8

June 16, 2005

Dear Mr. Vaccani:

This is in reply to your letter dated February 18, 2005, the Commission's letter dated March 15, 2005, and subsequent emails concerning the following proposals for Digital Television broadcast stations. It is the Commission's understanding based on recent conversations and emails with members of your staff that Industry Canada has no objection to the facilities for WCAX-DT in Burlington, VT as listed below, provided the Commission likewise has no objection to Canadian DTV channel 22 in Ottawa, ON and the Canadian allotment changes listed below. The Commission has no objection to the Canadian channels listed below and will proceed to implement the changes in our database for WCAX-DT in Burlington upon written confirmation from your Administration. Please be aware that WCAX-DT will operate on DTV channel 53 during the digital transition phase in accordance with its LOU allotted facilities and will switch to DTV channel 22 for post-transition operation.

- 1) Construct a new television broadcast station (x)
Modify an existing television broadcast station ()
- 2) City, Province: Ottawa, ON
- 3) Call letters: CBOT-DT
- 4) Transmitter location: 45-30-11 North Latitude
75-51-02 West Longitude
- 5) Channel number: 25 Class: VL *(L1)
- 6) Visual Effective Radiated Power: 165 kW
- 7) Antenna:
 - Radiation Center above mean sea level : 472.4 m
 - Antenna height above average terrain(3-16 km) : 333 m
 - Horizontal directivity pattern: Directional
 - Polarization: Horizontal, 0.5° electrical beam tilt
 - Make & Model: Alan Dick & Co. Ltd. (6 bays of 3 panels)

*(L1) Limited to -2dB to Syracuse, NY after Transition.

- 1) Construct a new television broadcast station (x)
 Modify an existing television broadcast station ()
- 2) City, Province: Ottawa, ON
- 3) Call letters: CBOFT-DT
- 4) Transmitter location: 45-30-11 North Latitude
 75-51-02 West Longitude
- 5) Channel number: 22 Class: VL
- 6) Visual Effective Radiated Power: 165 kW
- 7) Antenna:
 - Radiation Center above mean sea level : 472.4 m
 - Antenna height above average terrain(3-16 km) : 333 m
 - Horizontal directivity pattern: Directional
 - Polarization: Horizontal, 0.5° electrical beam tilt
 - Make & Model: Alan Dick & Co. Ltd. (6 bays of 3 panels)

1. City, State: Burlington, VT
2. Transmitter Location: 44-31-32.6 North Latitude
 72-48-55.1 West Longitude
3. Call Sign: WCAX-DT
4. Channel Number: 22
5. Effective Radiated Power: 443 kW *(L2)
6. Height Above Average Terrain: 845.2 meters
7. Radiation Center Above Mean Sea Level: 1269.4 meters
8. Antenna System: Non-Directional
 - Make & Model: Dielectric TUP-O4/C4SP-10/40H-2-R
 - Polarization: Horizontal, 1.25° electrical beam tilt

*(L2) WCAX-DT in Burlington is limited to 443kW ERP and 845.2m HAAT or the equivalent. DTV channel 22 in Ottawa will remain at transition facilities until the digital transition is implemented. In the event that DTV channel 22 in Ottawa ever increases to post-transition class VL facilities as specified in Table 4.3.2 of the DTV LOU, WCAX-DT in Burlington will be entitled to increase its ERP to 550kW.

<u>Location</u>	<u>Delete</u>	<u>Add</u>
Mont-St-Michel, QC (CBFT-DT-9) 46-46-23 NL/75-18-24 WL	22 B	23 B
Kingston, ON (CBLFT-DT-14) 44-17-22 NL/76-28-50 WL	22 C	65 C
McArthur's Mills, ON (CBOT-DT-5) 45-05-18 NL/77-38-50 WL	22 A	31 A
Lac Etchemin, QC (DTV) 46-23-00 NL/70-37-00 WL	22 A	30 A

Shawinigan, QC (DTV)
46-33-00 NL/72-45-00 WL

22 B

30 B

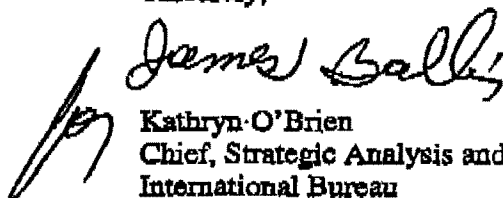
Bolton Est, QC (DTV)
45-03-44 NL/72-17-54 WL

23 B

16 B

The Commission has no objection to the above proposals and will amend our database accordingly.

Sincerely,



Kathryn O'Brien
Chief, Strategic Analysis and Negotiations Division
International Bureau

Mount Mansfield Television, Inc. • Station WCAX-TV • Burlington, Vermont

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained by Mt. Mansfield Television, Inc., licensee of Station WCAX-TV, Channels N03 and D53, Burlington, Vermont, to identify potential DTV channels within the “core” range for post-transition use by WCAX-DT.

Background

Following a number of discussions with FCC staff over a period of several years, and extensive informal negotiations with Industry Canada, Mt. Mansfield Television submitted to International Bureau a proposal to operate its post-transition DTV facility on Channel D22. International Bureau recently transmitted this proposal to Industry Canada.¹ As a part of its selection of Channel D22, Mt. Mansfield Television conducted a thorough interference analysis to ensure that no conflicts would exist with any U.S. domestic stations. This study included the possibility that Channel D22² might be used in Springfield, Massachusetts.

New Commission Analysis Software Gives Different Results

In its September 7, 2004, Report and Order to MB Docket 03-15, the Commission announced that it would apply a 0.1% allowance for new interference in evaluating post-transition channel elections. For the past several years, the FCC has based its determinations of so-called *de minimis* interference on a reduction in the interference-free service population from a published baseline value, and the Commission indicated that this same procedure would be used in channel conflict analyses. Specifically, at paragraph 36, the Commission stated that a table of station information would be published and the “DTV service populations [would] be used by the Commission to process stations’ channel elections.” Such a table was published on December 21, 2004,³ which included DTV service populations (*i.e.*, interference-free population coverage). Analysis of the proposed operation of WCAX-DT at 443 kilowatts ERP using this long-standing method showed a reduction in interference-free service for WWLP-DT as Channel D22 of 2,036 persons (0.085% of a published baseline population of 2,385,795 persons).⁴ Similarly, with WCAX-DT at 550 kW ERP, this method showed a reduction in interference-free service for WWLP-DT as D22 of 2,590 persons (0.109%).

¹ June 16, 2005, letter to P. Vaccani. Initial proposed facilities: N44-31-32.6, W072-48-55.1 (NAD-83), 1269.4 m. AMSL, 443 kilowatts ERP, non-directional, 1.25° electrical beam tilt, Dielectric, Type TUP-O4/C4SP-10/40H-2-R. WCAX-DT is entitled to increase its ERP to 550 kW under certain conditions.

² TV Station WWLP, D11/N22, is licensed to Springfield.

³ FCC DA 04-3922.

⁴ See Table 1, FCC DA 04-3922.



Mount Mansfield Television, Inc. • Station WCAX-TV • Burlington, Vermont

On June 14, 2005, the FCC made an unpublicized posting to its website,⁵ which included the results of the first round DTV channel conflict analyses, and the Fortran source code that was used for those analyses. Review of those data revealed that, instead of basing its analysis on the published interference-free population coverage, the Commission re-computed the baseline population of protected stations under certain conditions⁶ and based its 0.1% determination on a change in predicted interference (without considering impacts on interference-free service). When no channel change is involved from the original DTV allotment, the old and new methods yield the same result. However, when a channel change is involved, as is the case here, both the terrain-limited and interference-limited coverage will change, and the two methods of evaluating a change in the population baseline lead to different conclusions. The channel exchange between WWLP and WGBY triggered a recalculation in the population baseline for Channel 22. Our analysis indicates that for WCAX-DT on Channel D22 at 443 kW ERP, the Commission's new method for considering channel conflicts may result in predicted interference to WGBY-DT as Channel D22 of 3,204 persons out of 2,057,961, which is 0.16% of its new baseline. Similarly, with WCAX-DT at 550 kW ERP, the new method may result in predicted interference to WGBY-DT as Channel D22 of 3,869 persons (0.19% of the new baseline).

Request for Channel Conflict Study Using Actual Antenna Elevation Pattern

As discussed above, a run of the Commission's new Channel Conflict software using default parameters may result in 0.16% or 0.19% predicted interference to WGBY-DT as Channel D22. However, the extreme height above average terrain of the WCAX transmitting site necessitates the use of other-than default analysis parameters for accurate results. Specifically, the proposed operation of WCAX-DT, has greater beam tilt (1.25°) than the default 0.75° assumed in the Commission's analysis software. Accurate consideration of the proposed antenna elevation pattern would make a critical difference in this case, and it is believed that published Commission policy⁷ allows for such an alternative analysis.

In addition, the terrain between WCAX and WGBY is atypical, with many abrupt changes in elevation, and the use of digital elevation model (terrain) samples at one-kilometer intervals does not produce accurate results. Use of terrain profiles sampled at 10 points per kilometer gives more accurate results, and it is believed that published Commission policy⁸ allows for the use of such finer-resolution parameters.

⁵ http://www.fcc.gov/oet/dtv/dtv_apps.html

⁶ where a channel change was involved

⁷ Report and Order, MM Docket No. 00-39, released January 19, 2001, para. 66.

⁸ Public Notice No. 84889, August 10, 1998.



Mount Mansfield Television, Inc. • Station WCAX-TV • Burlington, Vermont

When the actual elevation-plane elevation pattern of the proposed antenna is used with the correct beam tilt and more detailed terrain extraction, the amount of predicted interference to WGBY-DT, as Channel D22 drops to 863 persons, which is just 0.04% of the new baseline. Similarly, the proposed operation of WCAX-DT at 550 kW ERP is predicted to cause interference to 1,324 persons, which is 0.06% of the new baseline. I therefore conclude that the proposed operation of WCAX-DT at either 443 kW or 550 kW ERP on Channel D22 complies with the FCC's 0.1% allowance for new interference.

Out-of-Core Channel 53 and In-Core Channel 3 are Not Suitable for WCAX-DT

In Docket 87-268, the Commission decided that, while DTV operations during the transition period could be on any channel (2-69), DTV operations after the transition is complete would be only on Channels 2-51, that is the DTV "core" channel range. WCAX was allotted an out-of-core Channel 53 for use during the transition, and so must change to an in-core channel post-transition. The obvious choice, Channel 3, is not suitable. Apart from technical issues, Industry Canada has allotted DTV Channel 3 to CKWS-TV, Prescott, Ontario and also to Thetford-Mines, Quebec, both of which are sufficiently close to WCAX that significant interference, in excess of 80% of the population baseline in the case of CKWS-TV, is predicted to those stations.

July 8, 2005



/s/ Robert D. Weller
Robert D. Weller, P.E.



HAMMETT & EDISON, INC.
CONSULTING ENGINEERS
SAN FRANCISCO

CERTIFICATE OF SERVICE

I, William R. Richardson, Jr., do hereby certify that I have on this 8th day of July, 2004, caused to be served true and correct copies of the foregoing "Petition for Reconsideration of Mt. Mansfield Television, Inc." by hand delivery or electronic mail and first-class mail, on the following persons:

* via hand delivery:


Rick Chessen
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